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# THE INSECT PEST SURVEY BULLETIN



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## BUREAU OF

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#### THE MORE IMPORTANT RECORDS FOR OCTOBER

Fuller's rose beetle was reported damaging kale and a number of broad-leaved evergreens in the Norfolk section of Virginia.

The fall armyworm was generally prevalent and doing considerable damage along the Atlantic seaboard from Norfolk to southern Virginia and around the Gulf from Alabama to Louisiana.

The velvetbean caterpillar seriously damaged cowpeas and soybeans from North Carolina to Florida and westward to Mississippi.

Large numbers of chinch bugs are entering hibernation, from Indiana to Iowa and southwestward through Missouri to Kansas.

European corn borer was generally less prevalent than last year in New York, except in the upper Hudson River Valley. Reports were received from northeastern North Carolina and two specimens were taken in Cook County, Ill.

The clover head weevil (<u>Tychius picirostris</u> F.), first found in Puget Sound region of Washington State in 1929, was found in considerable numbers in the four northern counties of the Willamette Valley, Orog., this year. It was also found in Deschutes County, east of the Cascades.

Comstock's mealybug (<u>Pseudococcus comstocki</u> Kuw.) has appeared in injurious numbers in several localities in the Shonandoah-Cumberland area, a particularly heavy infestation occurring near Crozet, Va.

Corn ear worm did considerable damage late in September and early in October in the trucking section from Maryland to Georgia and Mississippi, being particularly destructive to cruciferous plants. Lettuce and tomatoes were damaged from moderately to severely in California and Utah.

The potato tuber worm was recorded for the first time from Nebraska where it seriously injured about 125 bushels of potatoes in Cass County.

The Mexican bean beetle was unusually troublesome late in the season from South Carolina to Missouri and southward to the Gulf.

The banded cucumber beetle was from moderately to seriously abundant over the southern part of the Gulf States.

A very heavy outbreak of the Hawaiian beet webworm was reported from the Norfolk area of Virginia. Larvae were damaging spinach and beets.

Fall webworms were unusually severe in New England and along the Atlantic seaboard from Virginia to Florida. In the East Central States, Indiana and Missouri reported these insects in large numbers. Heavy infestations were also reported from Mississippi.

A heavy outbreak of walkingsticks in forest lands, particularly in locust trees, was reported from Virginia and Tennessee.

The bronzed birch borer was seriously damaging yellow birch in the northern New England States.

The European spruce sawfly still presents a serious problem in the northern New England States.

#### GENERAL FEEDERS

#### GRASSHOPPERS (Acrididae)

- Tennessee. G. M. Bentley (October 23): Causing a 25-percent defoliation on soybeans at Dresden, Weakley County, on October 6.

  Injuring clover at Greenfield, Weakley County, on October 7, with an average of 10-percent defoliation, and 100 percent on a strip 20 feet wide on the outer edge of the field. Swarming in hordes into the town of Waynesboro, Wayne County, on October 12.
- Illinois. W. P. Flint (October 25): Fall survey indicates that eggs are much less abundant than at any time in the last 5 years. Predators have been concentrating on the egg masses. In one area 54 percent of the eggs had already been destroyed.
- Michigan. E. I. McDaniel (September 28): Melanoplus mexicanus Sauss. was found laying eggs in Antrim County as late as September 21.
- Missouri. L. Haseman (October 23): Surveys under way throughout Missouri indicate numerous eggs throughout part of southern Missouri, where hoppers were most abundant during the summer and fall. Some females of both the lesser migratory hopper and the differential (M. differentialis Thos.) had not yet deposited their eggs at Columbia by the middle of October. Throughout most of the northern two-thirds of the State indications are that there will be only a light carry-over of eggs.
- Oklahoma. C. F. Stiles (October 23): The second brood of M. mexicanus has evidently deposited a large number of eggs throughout the northern halves of Texas and Cimarron Counties, in the Oklahoma Panhandle. The area where the eggs are found is the principal wheat-growing section of these counties.

# MORMON CRICKET (Anabrus simplex Hald.)

Utah. C. J. Sorenson (October 23): Infestations occurred in menacing numbers in Juab, Millard, Sanpete, and Tooele Counties. Damage to farm crops did not exceed \$2,500 during 1939, although an aggregate of 128,500 acres of crops was protected from damage. Small infestations occurred in Iron, San Juan, and Utah Counties. Total area infested during 1939 is estimated at 312,000 acres, as compared with 500,000 acres in 1937.

# JAPANESE BEETLE (Popillia japonica Newn.)

Vermont. H. L. Bailey (October 26): Traps operated in Burlington, northwestern Vermont, showed increase in number of beetles over previous seasons. Burlington is an isolated colony, the nearest

- known infestation being Rutland, 70 miles south. Attacks by beetles on vines and plants reported in August from White River Junction, Windsor County, east-central Vermont, and Brattleboro, Windham County, southeastern Vermont.
- Connecticut. J. P. Johnson (October 23): Injury to turf much greater than in 1938. In Hartford over 100 acres of turf in the parks has been seriously injured and more than 100 acres more are infested. Turf also badly infested in New Haven and in certain of the Bridgeport parks.
- Rhode Island. M. D. Leonard (October 12): A few beetles were still feeding on marigolds at Providence.

## A SCARABAEID (Ochrosidia borealis Arrow)

Maryland. F. F. Smith (September 18): Numerous larvae destroying roots of grass in Silver Spring. Abundant in localized areas in 1 lawn, over 200 being taken from beneath sod in a 2-square-yard area. Grass killed in such areas. Similar spotting noted in several lawns. (Det. tentatively as the above by W. H. Anderson.)

## FULLER'S ROSE BEETLE (Pantomorus godmani Crotch)

- Virginia. H. G. Walker and L. D. Anderson (October 24): Observed rather seriously infesting a small area of a kale field at Norfolk. Several requests received for information on control on gardenias in Norfolk.
  - C. R. Willey and F. R. Freund (October): Increasing in Virginia. Found attacking azalea, rhododendron, and gardenia, and specimens, which had been feeding on hydrangea and ivy, were brought in on September 29.

# WHITE GRUBS (Phyllophaga spp.)

Tennessee. G. M. Bentley (October 23): Two reports of heavy soil infestations, one from Chattanooga, Hamilton County, on October 7 and the other from Nashville, Davidson County, on October 12.

# GREEN JUNE BEETLE (Cotinis nitida L.)

New Jersey. C. H. Hadley (October 24): Outbreak observed at Haddon-field early in September. Many thousands of exit holes and larvae covering a large area of turf.

# BUMBLE FLOWER BEETLES (Euphoria spp.)

Michigan. E. I. McDaniel (September 28): Report received of unusual abundance of E. inda L. in Benzie and Osceola Counties.

Oregon. R. L. Post (September 25): Ten specimens of E. rufobrunnea Csy. collected at Condon and reported as congregating on an ear of corn and damaging it. (Det. by M. H. Hatch.)

#### WIREWORMS (Elateridae)

- Connecticut. R. L. Beard (October 24): Damage to potatoes generally less severe in 1939 than in 1938, the earlier varieties showing greater injury than the late.
- North Dakota. J. A. Munro (October 21): A few fields in the lighter types of soil in the northeastern potato-growing section of the State show from light to heavy injury of the tubers. In general, injury to potatoes appears to be much less than in 1938. The prairie grain wireworm (<u>Ludius acreipennis Kby.</u>) is the predominating species.
- California. R. E. Campbell (October 6): Tomato field in Los Angeles County just examined, in which Limonius californicus Mann. was boring into tomatoes in contact with the soil. Damage noticed shortly after recent rains had thoroughly moistened the soil. Many tomatoes contained several, one having 14. Similar damage reported from other fields.

#### COFFEE-BEAN WEEVIL (Araecerus fasciculatus Deg.)

Louisiana. O. T. Deen (October 4): Larvae taken from crowns and vines of Jacquemontia tamnifolia at Sunset. Languria sp. was also present. Apparently no injury to plant. Specimens were tunneling in the plants in a similar manner to the sweetpotato weevil. (Det. by W. H. Anderson.)

## CUTWORMS (Noctuidae)

- Florida. J. R. Watson (October 21): The semi-tropical armyworm (Prodenia eridania Cram.) and the larvae of Mocis repanda F., in particular, have been very injurious to lawn grass during the last month.
- Missouri. L. Haseman (October 23): On the nights of October 18-20 at Columbia there was a rather heavy flight of armyworm moths coming to lights and to decaying fruit.
- Utah. C. J. Sorenson (October 23): Moths of the pale western cutworm (Agrotis orthogonia Morr.) appeared in greatly reduced numbers in Utah County, as compared with the last 4 seasons. Active from September 9 to October 15, feeding on flowers of Chrysothamnus sp. and ovipositing.

## FALL ARMYWORM (Laphygma frugiperda A. & S.)

- New York. L. A. Carruth (October 25): Very abundant and destructive to sweet corn on Long Island from early in August until the end of the season. Serious infestations observed in the Hudson Valley as far north as Saratoga County late in September. Heavy infestation seen in Yates County, in the Finger Lakes district, on October 9. Reference made to an infestation of corn in Schenectady County by the true armyworm (Cirphis unipuncta Haw.) on page 487 of the Insect Pest Survey Bulletin dated October 1, 1939. Late in September the writer saw the gentleman who collected the specimens and examined the field where they were taken. At that time larvae of the fall armyworm were abundant. appears that the infestation reported earlier was caused by the fall armyworm and not by the true armyworm. The writer has personally examined fields of sweet corn in practically all counties from eastern Long Island to the upper Hudson Valley, and no larvae of C. unipuncta were observed, although larvae of L. frugiperda occurred generally, particularly late in September.
- Maryland. E. N. Cory (Scptember 28): Feported as attacking corn at Brooklandville, Baltimore County.
- Virginia. C. R. Willey and F. R. Freund (October): Very abundant and doing a great deal of damage to late corn in King George, Richmond, Westmoreland, Northumberland, and Lancaster Counties during the week following September 10. Found on October 6 injuring gladioli at Driver, Nansemond County.
  - H. G. Walker and L. D. Anderson (October 24): Considerable damage in spinach and peafields at Norfolk during the last 6 weeks, besides having been very destructive to late-planted corn.
  - W. J. Schoene (October 25): A number of reports of severe injury received from counties throughout the central part of the State and as far west as Wytheville. Particularly injurious to late-planted corn.
- Alabama. J. M. Robinson (October 13): Reported as attacking peanuts at Clayton on September 26.
- Mississippi. C. Lyle (October 25): One female of <u>Chelonus texanus</u> Cress. taken in the act of ovipositing in eggs of <u>L. frugiperda</u> on a magnolia leaf in Lowndes County on October 12.
- Louisiana. C. O. Eddy (October 25): The grassworm has killed late fall corn.

# VELVETBEAN CATERPILLAR (Anticarsia gemmatilis Hbn.)

North Carolina. L. W. Brannon (September 29): Larvae causing severe damage to leaves of soybeans at Elizabeth City, Pasquotank County,

- on September 29. (Det. by C. Heinrich.)
- South Carolina. J. G. Watts (September): More abundant in Barnwell County than in recent years. Extensive defoliation of soybeans, velvetbeans, and peanuts. Control measures necessitated in many instances.
- Georgia. H. I. Borders (October 6): Some damage was observed in fall plantings of cucumbers at Tifton in fields adjacent to plantings of legumes.
- Florida. J. R. Watson (October 21): Near Archer, Alachua County, there has been a severe infestation on cowpeas. The infestation spread from a peanut field and did much damage. Infestation brought under control by a fungus disease.
- Alabama. J. M. Robinson (October 13): Reported on September 30 as attacking peanuts at Ariton, Dale County, and Auburn, Lee County.
- Mississippi. C. Lyle (October 25): Collected on soybeans at State College on September 25, and in Jefferson Davis County on September 29.

## MONARCH BUTTERFLY (Danaus menippe Hbn.)

Kentucky. W. A. Price (October 25): Observed in large numbers at Lexington from September 25 to 27. They appeared to be moving in a southeasterly direction.

# A PLANT BUG (Thyanta custator F.)

Nebraska. M. H. Swenk (October 17): Heavy flight reported as having taken place in York County on the night of October 7.

# A TREE HOPPER (Enchenopa binotata Say)

Minnesota. H. Milliron (October 20): Reported at Northfield.

# SAY'S STINKBUG (Chlorochroa sayi Stal)

- Utah. G. F. Knowlton (October 23): Occasional adults found recently under Russian-thistle and amaranthus weeds in Salt Lake, Cache, and Davis Counties. Probably seeking shelter for hibernation.
  - C. J. Sorenson (October 23): Observed in moderate numbers during September in Millard County, feeding on young alfalfa seed.

## CEREAL AND FORAGE-CFOP INSECTS

#### WHEAT AND OTHER GRAINS

## HESSIAN FLY (Phytophaga destructor Say)

Indiana. J. J. Davis (October 5): The long, dry spell has prevented emergence; however, despite the dry conditions, considerable wheat has been sowed. A high mortality of the flaxseeds, probably owing to the excessive dryness, is reported.

## CHINCH BUG (Blissus leucopterus Say)

- Indiana. C. Benton (October 21): By October 6 only a few second-brood bugs, either fifth-instar nymphs, or adults, remained in corn in the vicinity of La Fayette. By October 16 practically none could be found. There was a progressive increase of the numbers present in a series of comparable bunchgrass samples examined at 10-day intervals. Migration screens set near bunchgrass showed that real migrations started about the middle of September and continued until about October 10, with peaks around September 15-16, September 26-30, and October 5-9.
- Illinois. W. P. Flint (October 25): Survey just started. From the data gathered thus far, very large numbers are found to be in hibernating quarters, probably the greatest number since the fall of 1933.
- Iowa. H. E. Jaques (October 23): Very abundant in many places throughout southern Iowa. In Henry County it is apparent that some corn yields have been appreciably reduced, and their large numbers constitute a serious threat for the next season.
- Missouri. L. Haseman (October 23): Proliminary fall surveys indicate that although chinch bug is scattered throughout the various counties, there is going to be a heavy carry-over in scattered localities throughout most of the State. Scarcity of rain since August has proved ideal for this pest. Last week bugs were feeding in green grass and were not found in large numbers in clump grasses.
- Nebraska. M. H. Swenk (October 17): Heavy flights of adults seeking hibernation quarters were noted in southeastern counties during the first half of October.
- Kansas. H. R. Bryson (October 24): Probably the outstanding insect feature of the month has been the flights of enormous numbers of adults. The long period of dry weather, accompanied by high temperatures, has stimulated flight. Large numbers found in

and around bunch grasses.

## FALSE WIREWORMS (Eleodes spp.)

Kansas. H. R. Bryson (October 24): Favored by dry-soil conditions which have prevailed over the greater part of the plains Wheat Belt. Although many losses in the area are attributed to dry weather, it is known that false wireworms are responsible for considerable damage to seed wheat.

## WHEAT MIDGE (Thecodiplosis mosellana Gehin)

Washington. M. M. Recher (July): A survey from July 24 to 27 of the present area infested in western Washington showed only a minor extension of the area infested in 1936. This was from Puyallup to Orting, about 10 miles in a previously infested valley in Pierce County. This is the known southern limit to date. None found on Fidalgo and Whidbey Islands, although the full length of the nearby mainland is known to be infested.

#### CORN

## CORN EAR WORM (Heliothis armigera Hbn.)

- Vermont. H. L. Bailey (October 26): Many larvae found in popcorn ears being harvested on October 4 at Guildhall, Essex County, northeastern Vermont.
- New York. L. A. Carruth (October 25): Slightly less abundant than usual on Long Island in 1939, although late in September serious injury to sweet corn ears was common. Relatively light infestations observed late in September and early in October in Ulster, Columbia, Albany, and Yates Counties, eastern New York. Much of the injury attributed to this pest actually caused by the fall armyworm (L. frugiperda) which was unusually abundant.
- Minnesota. A. G. Ruggles (October 20): Very abundant; last crop of sweet corn 100-percent infested.
- Missouri. L. Hascman (October 23): A heavy flight of moths appeared at Columbia from October 18-20, and some of the females were heavily loaded with what appeared to be mature eggs. Late corn still showed larval feeding in the ears at this time, although killing frosts have eliminated most vegetation on which larvae might attempt to feed.

# EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

New York. L. A. Carruth (October 25): Late infestations of the second summer generation lighter than in 1938 in eastern New York. Decrease in abundance apparently owing principally to

- the unusually dry weather. Despite the lower average of infestations, a number of individual fields were observed which showed serious infestations, particularly on western Long Island and in the Hudson Valley, in Ulster, Columbia, and Albany Counties.
- North Carolina. D. L. Wray and J. A. Harris (October 15): Slight infestation found in Currituck, Camden, and Pasquotank Counties, northeastern North Carolina. Previously reported this year on Knott Island, but also found in the above counties, being heavier near the coast line. (Det. by C. S. Brimley; other specimens from same counties det. by C. Heinrich.)
- Illinois. W. A. Baker (October 13): Two specimens taken in corn at Des Plaines, Cook County, on October 1. (Det. by C. Heinrich.)

## ALFALFA

## ALFALFA WEEVIL (Hypera postica Gyll.)

- Utah. C. J. Soronson (October 23): Increase in damage in Cache, Carbon, Duchesne, Emery, Millard, and Utah Counties during the 1939 season.
- California. A. E. Michelbacher (October 23): Survey in the alfalfa fields of the infested part of the San Joaquin Valley on October 16. Average number of adults collected per 100 sweeps for the different fields ranged from 0 to 108, while the number of larvae ranged from 0 to 22. On the same date in the region adjacent to the San Francisco Bay, the number of adults collected per 100 sweeps ranged from 0 to 1, while no larvae were taken.

# PLANT BUGS (Lygus spp.)

Utah. C. J. Sorenson (October 23): L. elisus Van D. and L. elisus hesperus Knight moderately abundant and slightly reduced in numbers, in comparison with recont years in all alfalfa fields, but inflicting serious damage in alfalfa-seed fields. Infestations very heavy during 1939 in some districts and fields. Observed early in October in unusually large numbers on ornamental flowers and on various species of Chrysothamnus and Artemisia, which were in bloom.

## CLOVER

# A CLOVER-HEAD WEEVIL (Tychius picirostris F.)

Oregon. M. M. Recher (July): Swept in July from roadside alsike elover in Columbia, Clatsop, Clackamas, and Washington Counties, Oreg. One weevil swept on July 15 in 600 sweeps of volunteer

hairy vetch and alsike clover in a field near Sisters, Deschutes County, Oreg. (Det. by L. L. Buchanan.) First found in the Puget Sound area of Washington in 1929.

## GREEN CLOVER WORM (Plathypena scabra F.)

Mississippi. C. Lyle (October 25): Found on soybeans at State College on September 25.

## A NOCTUID (Pelamia latipes Guen.)

Georgia. T. L. Bissell (October 4): Two moths emerged on September 29 from pupae on soybean leaves at Experiment, central Georgia. Three were collected and reared from September 1 to October 29, 1935, from larvae on grass. One moth obtained on October 27, 1936, from pupa on weed. (Specimens in 1935 det. by J. F. G. Clarke.)

#### GRASS

# TERMITES (Isoptera)

Texas. P. T. Riherd (October 14): The desert termite is becoming an economic pest of importance in some of the west-central counties. Especially noticeable in the drought-stricken counties. In some places 25 percent of the grass is covered by their tunnels.

#### FRUIT INSECTS

## SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

- North Carolina. D. L. Wray (September 20): Considerable damage to apple trees observed in Catawba County.
- Mississippi. C. Lyle (October 25): Reports of injury to peach trees received from Sunflower and Warren Counties late in September.

# FLATHEADED APPLE TREE BORER (Chrysobothris femorata Oliv.)

Mississippi. C. Lyle (October 25): A larva received from Washington County on October 23, with information that this species was killing young pecan trees in one grove.

## SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

- Minnesota. A. G. Ruggles (October 20): Reported from Rose Township.
- Mississippi. C. Lyle (October 25): Heavy infestations reported from the Meridian area and from the southeastern section, where one young peach orchard has been practically destroyed.

  Moderately abundant in the Jackson territory.

#### APPLE

# CODLING MOTH (Carpocapsa pomonolla L.)

- Virginia. A. M. Woodside (October 20): No third brood in Augusta County, according to insectary and bait-pail records.
- Minnesota. A. G. Ruggles (October 20): Very abundant where trees were not treated properly.
- Missouri. L. Haseman (October 23): Extremely heavy pick-up of third-brood larvae reported. Largely out of the fruit and into their winter cocoons. Last moths taken in bait traps at Cape Girardeau on October 10.
- Utah. C. J. Sorenson (October 23): Moderately abundant throughout the State. Occasionally found infesting ripening peach fruits in Utah County.
- Washington. E. J. Newcomer (October 19): Moths very active in Yakima County until September 26, owing to warm weather.
- Oregon. B. G. Thompson (October 20): Active in apples and pears in the Willamette Valley until September 15.

## APPLE MAGGOT (Rhagoletis pomonella Walsh)

- Indiana. J. J. Davis (October 5): Reported as destructive in Whitley County, in northeastern Indiana.
- Minnesota. A. G. Ruggles and assistants (October 20): Reported in apples at Saint Paul and in Jackson County.

#### LEAFHOPPERS (Cicadellidae)

- Virginia. A. M. Woodside (October 20): Leafhorpers of the genus Erythroneura still abundant in many apple orchards in Augusta County. E. hartii Gill. is the most common, but E. lawsoniana Bak. and E. obliqua Say are also present. The white apple leafhopper (Typhlocyba pomaria McA.) seems less abundant than a month ago.
- Missouri. L. Haseman (October 23): According to report, in southeastern Missouri apple leafhoppers built up during September but, owing to the lateness of the season, did no particular harm to the foliage or by spotting late fruit in October.

## WOOLLY APPLE APHID (Eriosoma laniserum Hausm.)

Tennessee. G. M. Bentley (October 23): On the roots of 2-year-old apples in central Tennessee on October 1. Considerable clay in soil, so that it cracks in hot, dry weather.

# COMSTOCK'S MEALYBUG (Pséudococcus comstocki Kuw.)

Virginia. W. J. Schoene (October 25): Spread to orchards not heretofore known to be infested. Considerable loss occasioned, owing to the partial covering of the apples on the infested trees with a sooty fungus.

#### PEACH

# ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

- Tennessee. G. M. Bentley (October 23): October brood unusually heavy on peach trees in different parts of Tennessee.
- Mississippi. C. Lyle (October 25): Injured peach twigs received on October 2 from Pike County, and injured pear fruit received from Monroe County on September 26. Reports of injury to peach from Copiah and Hinds Counties. Very noticeable injury to peaches reported from Yalobusha County.

Missouri. L. Haseman (October 23): Numerous moths continued to emerge at Columbia up until the first few days in October, and an occasional larva is still present in the fruit. At Cape Girardeau flight of moths reported as practically over during the week ended October 14, and very little evidence of late larvae in peach twigs.

## PEACH BORER (Conopia exitiosa Say)

- Georgia. O. I. Snapp (October 25): Examinations of peach trees in a number of commercial orchards at Fort Valley, central Georgia, during the last week indicate this insect as less abundant than usual. Dry weather during the latter part of the egg-hatching season undoubtedly prevented the entrance of a number of newly hatched larvae.
- Mississippi. C. Lyle (October 25): Requests for control measures from Clay, Copiah, Jones, and Tallahatchie Counties during the first half of October. Moderate damage and requests for control information reported from the Jackson area.
- Texas. R. K. Fletcher (October 20): Reported in McLennan County on October 4.

## PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Georgia. O. I. Snapp (October 20): All adults have left peach trees at Fort Valley for places of hibernation. Population now in hibernation heavier than that of an average year.

## PEAR

# A MITE (Eupalopsis mali Ewing)

Oregon. R. L. Post (October 2): Attacking leaves of pear at Corvallis. (Det. by E. A. McGregor, who says that there has been an outbreak this year and that the species has been sent in from several localities in Oregon and Washington.)

# A PEAR MITE (Tetranychus willamettoi McG.)

Oregon. P. L. Post (October 2): Attacking pear leaves at Corvallis. (Det. by E. A. McGregor.)

#### PLUM

# LESSER APPLE WORM (Grapholitha prunivora Walsh)

Oregon. V. E. Nygren (October 16): Larvae collected from prunes, in which they were feeding. Adults emerged. (Det. by C. Heinrich.)

## PLUM GOUGER (Anthonomus scutellaris Lec.)

Minnesota. H. Milliron (October 20): Reported on plum at Fort Ripley.

#### GRAPE

## GRAPE BERRY MOTH (Polychrosis viteana Clen.)

Ohio. G. A. Runner (October 20): Field surveys indicate generally somewhat lighter infestations than in 1938. In northeastern Ohio, where damage was not serious until the last few years, the berry noth is apparently becoming more common and has appeared in vineyards not previously infested.

## GRAPE LEAFHOPPER (Erythronoura comes Say)

- Ohio. G. A. Runner (October 20): An abundant broad of overwintering adults in some of the vineyards in the Sandusky area.
- Texas. R. K. Fletcher (October 20): Reported from Amarillo on October 13.
- Utah. G. F. Knowlton (October 10): Responsible for destroying approximately 85 percent of the foliage in a vineyard on Bountiful Bench.

# GRAPEVINE APHID (Aphis illinoisensis Shim.)

California. G. H. Kaloostian (May 12): Collected on grape shoots for the first time at Sanger, Fresno County. (Det. by P. W. Mason.)

#### NUTS

# WEEVILS (Curculio spp.)

- Georgia. O. I. Snapp (October 14): Larvae of chestnut weevils, probably <u>C. proboscideus</u> F. or <u>C. algonquinus</u> Csy., have ruined nuts on a number of chestnuts on Pine Hountain near Thunder, in Upson County, west-central Georgia.
- Mississippi. C. Lyle (October 25): Specimen of the acorn weevil (C. rectus Say) sent in from Jefferson Davis County on September 26.
- Texas. W. S. Price (October 25): Severe infestations of the pecan weevil (C. caryae Horn) observed in orchards near Byers, Fort Bend, Ennis, Granberry, and Liberty Hill, and in orchards in Bowie and Burleson Counties.

C. B. Nickels and W. C. Pierce (October 28): Near Gustine 200 or more pecan nuts were examined on each of 8 pecan trees and minimum infestation by C. caryae on any tree was 50 percent, maximum 97 percent, and average 89 percent. Estimated that more than two-thirds of the nut crop in seedling pecan orchards near the Leon River, in Comanche County, was destroyed by the pecan weevil.

## BLACK PECAN APHID (Molanocallis caryaefoliae Davis)

Mississippi. W. L. Grimes (October 25): Medium to light infestations in the Meridian area.

## A SAWFLY (Monophadnus caryae Nort.)

Maine. H. B. Peirson (October): Larvae of butternut woolly worm, from one-half to full-grown, collected on Japanese walnut on July 20 at South Bristol.

#### CITRUS

## YELLOW SCALE (Chrysomphalus citrinus Coq.)

California. R. S. Woglum (October): Heavy build-up during the last few weeks in parts of castern San Bernardino County, particularly the Bryn Mawr district. Fruit now being marred in the more heavily infested orchards.

# CITRUS RUST MITE (Phyllocoptes oleivorus Ashm.)

Louisiana. I. J. Becnel (October 25): Abundant throughout the Louisiana citrus section. Groves not treated showed a high percentage of severely tarnished fruit.

#### LEAFHOPPERS (Cicadellidae)

California. R. S. Woglum (October): For the last several years the green leafhopper has been of increasing importance in central California, feeding on ripening fruit and causing spots or oilcell injury. Adults move into groves late in summer.

# LEAF-FOOTED BUG (Leptoglossus phyllopus L.)

Florida. J. R. Watson (October 21): Troublesome to many plants, especially Satsuma oranges.

# AVOCADO

## SCALES (Coccidae)

Florida. H. Spencer (September 23): Avocado leaves infested with
Florida red scale (Chrysomphalus aonidum L.) and another scale,
Aspidiotus spinosus Comst., sent in from Avon Park on
September 20. (Det. by H. Morrison.)

#### TRUCK-CROP INSECTS

## CORN EAR WORM (Heliothis armigera Hbn.)

- Maryland. E. N. Cory (October 4): Reported as attacking broccoli at Allen, Wicomico County, and damaging snap beans at Salisbury.
- Virginia. H. G. Walker and L. D. Anderson (October 24): A great deal of damage in many beanfields in eastern Virginia. One 60-acre field of lima beans near Accomac was so badly damaged that no attempt was made to pick the beans. Nearly all fields of snap beans in Norfolk and Princess Anne Counties and on the Eastern Shore more or less severely damaged. Some damage in young peafields, where worms fed on blossoms and young pods. A 250-acre field of broccoli near Accomac rather heavily infested, counts showing an average of from 5 to 10 larvae per plant, with many plants having as high as 25 larvae. (Last specimens det. by C. Heinrich.)
- North Carolina. L. W. Brannon (September 28): Larvae causing severe damage to blossoms and pods in a 10-acre field of bush lima beans at Elizabeth City. Pods injured to the extent that very few marketable pods were harvested. Severe damage to green pea blossoms and pods at Moyock. (Det. by C. Heinrich.)
- Georgia. T. L. Bissell (September 29): Heavy infestation of larvae on collards at Clarkston, central Georgia.
- Mississippi. C. Lyle and assistants (October 25): Injury to tomatoes reported from the Meridian area and in Madison County early in October. Injury to chrysanthenums reported at State College.
- Utah. G. F. Knowlton (October 1): Increased injury to tomatoes reported in the Murray area for the week beginning September 25.
- California. R. E. Campbell (October 4): Considerable damage to lettuce appeared last week in the Salinas Valley area.
  - A. E. Michelbacher (October 23): Infestations in tomato fields in the northern producing region of California as follows: O to 12 percent in Alameda County on October 2; O to 20 percent in Madera County on October 3; 1 to 8 percent in Merced County; 1 to 10 percent in Stanislaus County on October 10; less than 1 percent to 10 percent in San Benito County on October 17; 1 to 29 percent in Monterey County; and 3.5 to 29 percent in Santa Cruz County on October 19. Many of the larvae observed in the last-named county were very small, indicating that the infestation had set in very late in the season.

#### CUCUMBER REETLES (Diabrotica spp.)

- South Carolina. J. G. Watts (October): At Blackville practically no striped cucumber beetles (D. vittata F.), very few spotted beetles (D. duodecimpunctata F.), but banded ones (D. balteata Lec.) are abundant, although less so than at this time last year.
- Florida. J. R. Watson (October 21): A severe infestation of D. balteata on turnips reported from Putnam County.
- Alabama. J. M. Robinson (October 13): D. balteata moderately abundant at Auburn.
- Mississippi. M. L. Grimes (October 25): Injury to beans by the spotted and striped cucumber beetles in the Meridian territory.
- Louisiana. C. O. Eddy (October 25): Banded cucumber beetle very numerous.
- Indiana. D. W. LaHue (October 21): Numerous adults of the southern corn rootworm (D. duodecimpunctata) observed feeding on alfalfa near Crawfordsville on October 20.
- Minnesota. A. G. Ruggles (October 20): Striped cucumber beetle very abundant.
- Missouri. L. Haseman (October 23): Spotted and striped cucumber beetles have been moving into winter quarters at Columbia since killing frosts earlier in the month.
- Kansas. H. P. Bryson (October 24): D. vittata abundant around late squashes. D. duodecimpunctata more abundant than usual, and the adults causing some injury to the flowers and buds of late fall roses, chrysanthemums, and other flowers.
- Oklahoma. F. A. Fenton (October 19): The twelve-spotted cucumber beetle again causing widespread damage to flowers, especially chrysanthemums and dahlias.

# SOUTHERN GREEN STINKBUG (Nezara viridula L.)

Mississippi. C. Lyle and assistants (October 25): Specimens from soybeans received from Jefferson Davis County on September 29, and a report of injury to beans in Jasper County on October 3. Injury to beans and cowpens reported from the Meridian area. In the southeastern part of the State serious injury to beans, cowpens, and other truck crops noted.

## GREEN STINKBUG (Acrosternum hilare Say)

Mississippi. C. Lyle and assistants (October 25): Specimens received on September 29 from Yazoo County, where they were feeding on lima beans. Report of injury to lima beans throughout the Grenada area.

#### POTATO AND TOMATO

## COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

- Tennessee. G. M. Bentley (October 23): Extremely few in all parts of the State throughout the season.
- North Dakota. J. A. Munro (October 21): Tachinids reared from larvae collected at Grand Forks and Fargo during the last summer determined by H. J. Reinhard as <u>Doryphorophaga doryphorae</u> Riley. About 30 percent of the larvae parasitized.

## TOMATO PINWORM (Keiferia lycopersicella Busck)

California. A. E. Michelbacher (October 23): Infestations found as follows in a survey made of the tomato fields in the northern producing region of California: None in Alameda County on October 2; from 4.5 to 72 percent in Madera County on October 3; from 5 to 91 percent in Merced County on October 9; none in Stanislaus County on October 10, in San Joaquin County on October 13, in San Benito County on October 17, in Monterey County, nor in Santa Cruz County on October 19.

# POTATO TUBER WORM (Gnorimoschema operculella Zell.)

- Nebraska. M. H. Swenk (October 17): Found on September 28 to have injured severely about 125 bushels of potatocs in Cass County. This is the first record of this pest for the State.
- California. A. E. Michelbacher (October 23): Survey of the tomato fields in the northern producing region of California showed the following infestations: From O to 5.5 percent in Alameda County on October 2; none in Madera County on October 3 nor in Merced County on October 9; from O to less than 1 percent in Stanislaus County on October 10; from O to 4 percent in San Joaquin County on October 13; from O to 3 percent in San Benito County on October 17; from O to 5 percent in Monterey County; and, from less than 1 percent to 12 percent in Santa Cruz County on October 19.

## HORNWORMS (Protoparce spp.)

California. A. E. Michelbacher (October 23): Throughout most of the northern tomato-producing section the tobacco hornworm (P. quinquemaculata Haw.) and the tomato hornworm (P. sexta Johan.) were less abundant than in 1938. Very little damage.

## POTATO AND TOMATO PSYLLID (Paratrioza cockerelli Sulc)

Minnesota. H. Milliren (October 20): On tomato at Moorehead.

## LEAFHOPPERS (Empoasca sp.)

Utah. G. F. Knowlton (October 5): Seriously spotting the leaves of some late potatoes at Plain City.

## CITRUS MEALYBUG (Pseudococcus citri Risso)

Oklahoma. F. A. Fenton (October 19): Reported on tubers of potatoes in Konawa, Seminole County, and in Pauls Valley, Garvin County.

#### THRIPS (Thysanoptera)

Utah. G. F. Knowlton and W. P. Nye (September 29): Frankliniella moultoni Hood and Thrips tabaci Lind. are infesting tomatoes at Hooper. Damage to tomatoes observed in several localities this season. (Det. by S. F. Bailey.)

#### BEANS

# MEXICAN BEAN BEETLE (Epilachna varivestis Muls.)

- South Carolina. J. G. Watts (October): Abundant and doing much damage to lima and string beans in Barnwell County in September and early in October. More abundant in September than in August.
- Alabama. J. M. Robinson (October 13): Moderately abundant at Auburn.
- Mississippi. C. Lyle and assistants (October 25): Injury to beans reported from Jasper, Oktibbeha, and Tippah Counties. Also reported as very destructive to late beans in northern Yalobusha County, while general heavy infestations prevail in the Mcridian area and throughout the northeastern part of the State.
- Missouri. L. Haseman (October 23): According to report from Cope Girardeau, beetles were largely in hibernation by the middle of October.

## A LOOPER (Autographa sp.)

Virginia. H. G. Walker and L. D. Anderson (October 24): Very destructive to beans near Urbana and in some fields on the Eastern Shore. It fed on leaves, blossoms, and peds of snap and lima beans. (Det. by C. Heinrich.)

#### PEAS

## PEA WEEVIL (Bruchus pisorum L.)

Utah. G. F. Knowlton (October 20): All canning peas raised at Butlerville, Salt Lake County, condemned, owing to an outbreak.

#### CABBAGE

## HARLEQUIN BUG (Murgantia histrionica Hahn)

- Virginia. H. G. Walker and L. D. Anderson (October 24): Reported as rather seriously injuring a field of cabbage in Northampton County.
- Tennessee. G. M. Bentley (October 23): Very abundant on turnips, kale, and late cabbage in various counties in the State.
- Mississippi. C. Lyle (October 25): Injury to collards reported from Carroll and Grenada Counties and from Meridian.

# CABBAGE LOOPER (Autographa brassicae Filey)

Virginia. H. G. Walker and L. D. Anderson (October 24): Outbreak started about 1 month ago at Worfolk, but loopers soon died from disease.

# SQUASH

# SQUASH BUG (Anasa tristis Dog.)

- Minnesota. H. Milliron (October 20): Poported from Minneapolis and on pumpkin at Waldorf.
- Missouri. L. Haseman (October 23): Since the killing frosts early in the month squash bugs have been moving into winter quarters at Columbia.

#### CU CUMBERS

# MELONWORMS (Diophania spp.)

Georgia. O. I. Snapp (September 22): Many cucumbers ruined by the melonworm in a 14-acre field at Fort Valley, central Georgia.

H. I. Borders (October 6): In inspecting fall plantings of cucumbers at Tifton, several instances of heavy pickleworn infestations were observed.

#### ASPARAGUS

## ASPARAGUS BEETLE (Criocoris asparagi L.)

- South Carolina. J. G. Watts (October): Unimportant throughout the season in Barnwell County. A larval parasite, <u>Stonatolydella infernalis</u> Towns., became active in June, increased in activity until October 1, but not considered important in holding down beetle population.
- Utah. G. F. Knowlton (October 5): Larvae very abundant on some asparagus plants examined at Sunset and Plain City.

#### TURMIP

## CABBAGE WEBWORM (Hellula undalis F.)

- South Corolina. J. G. Watts (October): Common on turnips at Black-ville during September and October, but no serious damage done.
- Mississippi. M. L. Grimes (October 25): Reports of injury to turnips by a webworm, supposed to be this species, in the Moridian area.
  - A STRIPED FLEA BEETLE (Phyllotreta vittata discedens Weise)
- Mississippi. C. Lyle (October 25): Specimens of the southern form of the striped flea beetle received on October 23 from Leflore County, with a report of heavy damage to turnips.

# BEET LEAFHOPPER (Eutottix tenellus Bak.)

Utah. G. F. Knowlton (October 13): Adults moderately abundant on turnips at North Farrington.

## SPINACH

# HAWAIIAN BEET WEBWORM (Hymonia fascialis Cram.)

Virginia. H. G. Walker and L. D. Anderson (October 24): A very heavy outbreak has occurred on spinach in Norfolk, Princess Anne, and Northampton Counties. Millions of moths present in this area, but spinach and beets the only crops scriously injured.

#### LETIU CE

## SUGAR-BEET POOT APHID (Pemphigus betae Doane)

California. P. E. Campbell (October 5): The aphid on lettuce in the Salinas-Watsonville district, reported on page 502 of the Insect Fest Survey Bulletin dated October 1, 1939, has been identified as the above.

#### SWEETPOTATO

## SWEETPOTATO WEEVIL (Cylas formicarius F.)

Louisiana. C. O. Eddy (October 25): Reports indicate that the infestation is running higher than usual.

#### MUSHROOMS

#### MUSHROOM INSECTS (Diptera)

Pennsylvania and Delaware. C. A. Thomas (October 25): Cecidomyiid larvae (Mycophila sp. and others) are very abundant in the mushroom district from Nottingham to Kennett Square, Chester County, Pa., and south into the mushroom houses of northern Delaware. Much damage. Paedogenic larvae very common, from 12 to 20 new larvae being produced from the mother larva. Infested mushrooms refused for canning purposes.

# A MITE (Tarsonemus sp.)

Pennsylvania. C. A. Thomas (October 25): Abundant in some of the mushroom houses in the mushroom district from Nottingham to Kennett Square, turning the stem-base red by their feeding.

#### COTTON INSECTS

## BOLL WEEVIL (Anthonomus grandis Boh.)

- Florida. C. S. Rude (October 14): Abundant in all fields in Alachua, Marion, and Lake Counties, breeding on second-growth cotton. Fopulation about the same as a year ago.
- Alabama. J. M. Robinson (October 13): Moderately abundant at Auburn.
- Mississippi. C. Lyle (October 25): Considerable injury to late cotton. Large numbers will be present to enter hibernation in most sections of the State.
  - E. W. Dunnam, et al. (September 30): About half as numerous as at this time last year in Washington County. A few still emerging from late bolls that are now opening. Few remaining squares almost destroyed by excessive feeding. Not much damage in open plantations this season; most damage occurring in cotton near wooded areas, but even there breeding was low, owing to dry season. (October 7): Still emerging from late bolls. Emergence about equal to mortality, as the population appears to be at a standstill. The parasites reported as attacking grubs in bolls appear to be Microbracon mellitor Say. (October 28): Cool nights have caused weevils to disappear. Mostly in poor condition; possibly a few young weevils in fair condition.
  - R. L. McGarr (October 21): Squares still plentiful in most of the late cotton in Oktibbeha County. Present field conditions continue to indicate that a large number of weevils will be ready to enter hibernation within a short time. (October 28): Squares plentiful, and weevils still active.
- Louisiana. I. J. Becnel (October 25): Damage on early cotton somewhat severe. Extremely hot and dry weather in July and August reduced infestations throughout Red River Valley. Late cotton near Baton Rouge severely attacked.
- Oklahoma. F. A. Fenton (October 19): More abundant on cotton in vicinity of Stillwater than since 1936. In 1937 and 1938 it was rare in Payne County, but this year most of the squares and late bolls have punctures and weevils are abundant.
- Texas. K. P. Ewing, et al. (October 21): On October 13, 10,000 weevils were caught, counted, and released in the series of hibernation cages at Waco, McLennan County. Much easier to

catch than anticipated. Field in which they were caught had produced practically no cotton, owing to early flea hopper (Psallus seriatus Reut.) and late weevil damage. Cotton squared abundantly, and weevils exceedingly plentiful.

## PINK BOLLWOPM (Pectinophora gossypiella Saund.)

- Texas. L. F. Curl (August 28): Another county, hitherto not infested, brought into the infested group, when one specimen was taken at El Indio, Maverick County, on August 24. An additional specimen reported from the same place on August 26 but not yet received. Additional specimens found in Jim Hogg and Duval Counties before inspection was completed there, making a total of 21 from Duval County and 12 from Jim Hogg.
  - R. E. McDonald (September 21): Heavy infestation found in the southern part of Cameron County, and, during the period of gin-trash inspection, a general to light infestation found in all other south Texas counties. Incipient infestations found during August in Duval, Jim Hogg, La Salle, Maverick, Webb, and Zapata Counties, lying just outside of the regulated area of south Texas. Light infestation found in two okrafields in August in the Brownsville area of the lower Rio Grande Valley. (October 3): Another find in territory hitherto not known to be infested made on September 25, when I specimen was found in gin trash at San Angelo. This was from a bulk sample containing trash from Tom Green, Sterling, and Irion Counties. On September 29, 4 specimens found in sample from Eola, Concho County.

# COTTON LEAF WORM (Alabama argillacea Hbn.)

- South Carolina. J. G. Watts (October): Observed in South Carolina probably a little later than last year. Few larvae observed throughout September, causing little defoliation. Extensive defoliation not noted until about October 10 and then only in isolated fields in several central and southwestern counties.
- Florida. C. S. Rude (October 14): Another generation made its appearance during the last week and has stripped the plants in many fields in Alachua, Marion, and Lake Counties.
- Mississippi. C. Lyle (October 25): Spotted infestations reported from the lower Delta, and light infestations from the central section, the Meridian area, and from Oktibbeha and Lowndes Counties. Infestation at State College lighter than usual.

- R. L. McGarr (October 21): Very numerous this week in one field of cotton in Oktibbeha County. Moths very numerous in two other fields where they had recently emerged.
- Louisiana. R. C. Gaines and assistants (October 7): Some ragging observed in second-growth cotton in Madison Parish.
- Tennessee. G. M. Bentley (October 23): None appeared in Tennessee until about the middle of September. Owing to the dry, hot weather they appeared only in small patches and did no damage. On October 12 at Medina, Gibson County, a cotton field was found having fully 70-percent defoliation, but too late to cause any damage.

## APHIDS (Aphiidae)

Mississippi. E. W. Dunnam, et al. (October 28): Again increasing on the tops of plants, bracts, and stems in Washington County. Unusually dark in color. The species which appears to be the cotton aphid (Aphis gossypii Glov.) is less numerous but increasing slightly on the lower leaves.

## COTTON STAINER (Dysdercus suturellus H. S.)

Florida. C. S. Rude (September 30): Becoming abundant in most fields in Marion and Alachua Counties. Some damage resulting from crushing the nymphs in picking cotton. More abundant a year ago and a good deal more damage done, as it appeared much carlier in the season.

# A MIRID (Creontiades femoralis Van D.)

Arizona, W. A. Stevenson (September 23): A comparatively heavy infestation noted in a field of long-staple cotton at Sahuarita, Fima County. Insects have apparently bred up in the cotton. Infestation developed too late in the season to cause appreciable damage.

#### FOREST AND SHADE-TREE INSECTS

## FALL WEBWORM (Hyphantria cunea Drury)

- Massachusetts. A. I. Bourne (October 5): There has been an unusually severe infestation on the lower Cape in Barnstable County.
- Virginia. C. R. Willey and F. R. Freund (October): Very abundant in southeastern part of the State.
- South Carolina. J. G. Watts (September): Beginning late in July this insect was common in several southwestern counties on persimmon. In August and September it was prevalent on pecan in most sections of the State.
- Florida. J. R. Watson (October 21): Very abundant over the northern part of Florida.
- Mississippi. C. Lyle (October 25): Unusually heavy infestations on hickory, pecan, and persimmon reported from practically the entire State.
- Indiana. J. J. Davis (October 5): Rather prevalent throughout the State.
- Missouri. A. C. Burrill (September 6): There has been a growing epidemic for over a fortnight at Jefferson City. Some young mulberries were completely skeletonized.
- Texas. R. K. Fletcher (September 29): The fall webworm was noted in Ochiltree County.

# GYPSY MOTH (Porthetria dispar L.)

- Vermont. S. S. Crossman (October 2): A scouting crew working in Warren Township, Washington County, on September 18-23, located a small gypsy moth infestation. Because the growth in the vicinity is not especially favorable as gypsy moth food, it is anticipated that it will not be difficult to exterminate the insect.
- Massachusetts. S. S. Crossman (September 16): On September 13 a gypsy moth was discovered depositing eggs. This is unusually late, as practically all egg clusters are deposited by the end of August. This observation was made in Cummington Township, Hampshire County, and a similar one was reported from Pennsylvania at about the same time.

Connecticut. S. S. Crossman (September 30): Recently a small infestation was found in Woodbury, Litchfield County. So far as known, this is the first infestation in the township.

#### WALKINGSTICKS (Phasmidae)

- Virginia. C. R. Willey and F. R. Freund (October): Diapheromera femorata Say damaged a locust tree on Skyline Drive, 4 miles south of Front Royal. On October 5 several acres of young locust trees were observed to be practically defoliated.
- Tennessee. G. M. Bentley (October 23): Walkingsticks have been more prevalent in woodlands than for many years.

## PIGEON TREMEX (Tremex columba L.)

- Maryland. E. N. Cory (October 18): Noted on oak twigs at Baltimore.
- Minnesota. H. Milliron (October 20): Reported on elm at Minneapolis.

#### BEECH

## BEECH SCALE (Cryptococcus fagi Baer.)

- Maine. L. D. Casey (October 24): Infestations have built up considerably during the last year in the sample plots in the eastern and contral parts of the State. The insect has spread to a number of trees not previously infested. No increase in the number of dead or dying beech trees in the plots this year, but in most of the plots the degree of Nectria infection and the number of trees affected by it were increased.
- New Hampshire. J. V. Schaffner, Jr. (October 24): One infested beech tree has been found at Bartlett. This is the first record of the insect from the White Mountains.
- New York. R. C. Brown (October 24): Apparently distributed over the whole of Westchester County. In most places the infestation is light, although a few trees had a medium infestation. In Rockland County a few lightly infested beech stands were observed.

# BEECH LEAF SKELETONIZER (Psilocorsis faginella Chamb.)

- Maine. H. B. Peirson (September 10): Heavy infestation throughout most of the northern two-thirds of the State.
  - L. D. Casey (October 5): There has been considerable feeding on beech trees in the eastern part of the State,

especially throughout Washington, Hancock, and Waldo Counties. In some localities in Washington County 75 percent of the beech foliage was affected, while in the vicinity of Liberty, Waldo County, the amount of foliage skeletonized ranged from only 10 to 25 percent.

#### BIRCH

## BRONZED BIRCH BORER (Agrilus anxius Gory)

- Maine. J. V. Schaffner, Jr. (October 24): Extensive mortality of mature yellow and white birch observed in the southern part of Aroostook County, near Smyrna Mills.
- Vermont. H. L. Bailey (October 26): Damage severe in yellow birch in forest areas about Ripton, Addison County, western part of the State.

## BIRCH SKELETONIZER (Bucculatrix canadensisella Chamb.)

New York. R. E. Horsey (October 16): A number of river birch in an ornamental planting in Rochester noted with leaves badly skeletonized, although no live insects were found.

## A MEMBRACID (Platycotis vittata F.)

Virginia. C. R. Willey and F. R. Freund (October 9): Damaging white birch at Locustdale.

# AN APHID (Calaphis betulae Buckton)

New Jersey. M. D. Leonard (October 17): Many white and gray birch trees at Ridgewood, commonly infested earlier in the year and during the last several years usually considerably infested in the fall, seem to have been almost devoid of this aphid for some time.

## APHIDS (Aphiidae)

Utah. G. F. Knowlton (September 28): Rather abundant on a few weeping birch trees at Hooper and Ogden.

#### BOXELDER

# BOXELDER BUG (Leptocoris trivittatus Say)

Pennsylvania. C. A. Thomas (October 25): A heavy infestation is occurring at Coatesville, Chester County, where damage to boxelders has been caused. At present they are to be found in

large groups on the trunks and lower branches of these trees and upon and in nearby houses, where they congregate on the warmer southern side of the buildings. All stages, from half-grown nymphs to the adults, are present.

#### CATALPA

## CATALPA SPHINX (Ceratomia catalpae Bdv.)

Indiana. J. J. Davis (October 5): Common throughout the State during the last month.

#### ELM

# ELM FLEA BEETLE (Altica ulmi Woods)

Maine. H. B. Peirson (August): Very abundant on elm at Augusta, Portland, and many towns in southern Maine.

## EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Nebraska. M. H. Swenk (September 19): Reported as heavily infesting trees in Chase County.

## A TERMITE (Reticulitermes flavines Koll.)

North Carolina. D. L. Wray (September 24): Young Chinese elm trees were severely damaged at Forest City and Green Hill, Rutherford County.

#### HICKORY

HICKORY LEAF STEM GALL (Phylloxera caryaecaulis Fitch)

Massachusetts. E. P. Felt (October 23): Troublesome in Boston area.

#### LARCH

# LARCH SAWFLY (Lygaconematus erichsonii Htg.)

Pennsylvania. T. J. Parr (October 5): Larch plantations at Paradise Furnace near Mount Union, infested heavily last year, carried a much lighter infestation this summer and apparently will be still more lightly infested next year. Reduction owing mainly to destruction of cocoons by rodents.

#### LINDEN

#### AN APHID (Myzocallis tiliac L.)

New Jersey. M. D. Leonard (October 17): Several large street trees at Ridgewood, under observation and apparently uninfested during the long dry summer, now show scattered leaves with one or two aphids present on each.

## MULBERRY WHITEFLY (Tetraleurodes mori Quaint.)

New Jersey. M. D. Leonard (September 25): A large street tree (American linden) examined at Ridgewood, showed a moderate infestation on the undersides of the leaves. (Det. by Louise M. Russell.)

#### LOCUST

# LOCUST BORER (Cyllone robiniae Forst.)

Virginia. C. R. Willey and F. R. Freund (October): Observed as very abundant on goldenrod from Winchester to Roanoke and into Appoint during the week of September 17.

#### MAPLE

# . AN APHID (Drepanaphis acerifoliae Thos.)

New York. M. D. Leonard (October 21): Some large maple trees at Flushing were very lightly infested, and sexual apterous females were among those present.

# NORWAY MAPLE APHID (Periphyllus lyropictus Kess.)

New Jersey. M. D. Leonard (October 17): Several small maple trees, apparently uninfested much earlier in the season, recently developed small colonies on some of the leaves.

# GREEN-STRIPED MAPLE WORM (Anisota rubicunda F.)

Maine. H. B. Peirson (August 25): There was a heavy stripping of maple trees in Townships 30 and 35, east-central Maine.

# A BORER (Proteotoras acsculana Riley)

Virginia. H. G. Walker and L. D. Anderson (October 24): Observed feeding in the tender growing shoots of maple seedlings at Norfolk.

#### OAK

## HORNED OAK GALL (Andricus cornigerus O. S.)

- New York. E. P. Felt (October 23): Reported as somewhat abundant at Monroe.
- Mississippi. C. Lyle (October 18): Received from Lee County.

## AN APHID (Myzocallis bolla Walsh)

New York. M. D. Leonard (October 17): A pin oak tree at Flushing, under observation all season, lately became reinfested so that many leaves had 20 to 30 aphids each, and some honeydew was present. Alates were not numerous.

## OAK LACEBUG (Corythucha ciliata Say)

Maryland. E. N. Cory (September 29): Was attacking oak leaves at Towson.

# OBSCURE SCALE (Chrysomphalus obscurus Comst.)

Delaware. E. P. Felt (October 23): Occurred abundantly on oak at Wilmington.

## PERSIMMON

# TWIG PRUMER (Hypermallus villosus F.)

Indiana. J. J. Davis (October 5): Is common, especially in southwestern part of the State.

#### PINE

# SAWFLIES (Neodiprion spp.)

- Maine. H. B. Peirson (September 11): There was quite a heavy infestation of the pitch pine sawfly (N. pini-rigidae Nort.) at Cape Porpoise on pitch and white pine. Larvae were nearly full grown, and had jet-black heads, although sometimes described as brown. (September 5): Larvae of Abbott's sawfly (N. pinetum Nort.) were collected at West Southport.
- Minnesota. H. Milliron (October 21): N. pinetum was reported at Lake City on white pine.
- Alabama. J. M. Robinson (September 18): The red-headed pine sawfly (N. lecontei Fitch) was reported on evergreens at Eufaula and Wedowec.

### A WEEVIL (Hylobius radicis Buch.)

Massachusetts. J. V. Schaffner, Jr. (October 12): It was reported in May 1939, that a plantation of Scotch and Corsican pine in Weston was heavily infested. Thus far, only the trees which were wind-thrown in the storm of September 21, 1938, have died. Many of the standing trees are now heavily infested and the root-collars in many cases almost completely girdled. Adults, both teneral and older active specimens, were observed on October 12, as well as larvae ranging from about one-fourth grown to nearly full grown.

## AN APHID (Dilachnus sp.)

Minnesota. H. Milliron (October 20): Was reported on Scotch pine at Hasty, Wright County.

### PINE BARK APHID (Pincus strobi Htg.)

Minnesota. A. G. Ruggles (October 20): Abundant on white pine over the State.

### PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

New Jersey. E. P. Felt (October 23): Was found abundant at Maplewood.

# PITCH TWIG MOTH (Petrova comstockiana Fern.)

Minnesota. H. Milliron (October 20): Reported on jack pine at Akeley, Hubbard County.

## NANTUCKET PINE SHOOT MOTH (Rhyacionia frustrana Comst.)

Illinois. H. J. MacAloney (October 16): Taken from the Rosiclare Ranger District of the Shawnee National Forest. (Det. by C. Heinrich.)

#### SPRUCE

# EUROPEAN SPRUCE SAWFLY (Diprion polytomum Htg.)

Maine. H. B. Feirson (September 10): Over 2,500 reports of the presence of the European spruce sawfly in Maine were received this summer. The widespread outbreak is increasing in intensity in sections of northern and eastern Maine. The State reared and liberated over 100,000,000 Microplectron fuscipennis Zett., a parasite on the sawfly cocoons, this year.

- New Hampshire. P. B. Dowden (October 24): During 1939 areas heavily infested in southern New Hampshire, near Dublin, and southern Vermont, near Wilmington, increased in wide circles, but feeding was less severe in the stands heavily attacked in 1938. The severely affected area in southern Vermont now includes about 50 square miles and that in southern New Hampshire about 100 square miles. In central Vermont, at Lincoln, infestation became greatly reduced. The sawfly is generally present in small numbers throughout the spruce areas of both Vermont and New Hampshire.
- Vermont. H. L. Bailey (October 26): This season showed expansion of heavy infestation in Wilmington-Marlboro area, Windham County, south-central Vermont. Infestation was less intensive, however, in areas of heaviest defoliation last season. Population built up on periphery of infestation as it receded in the interior. Much smaller number of cocoons per foot present than were found last year.

### SPRUCE NEEDLE MINER (Taniva albolineana Kearf.)

- Maine. H. B. Peirson (June 13): Larvae were attacking spruce in Augusta and were nearly full grown.
- Minnesota. H. Milliron (October 20): Reported on spruce at Northfield.

# SPRUCE BUDWORM (Cacoecia fumiferana Clem.)

Minnesota. A. G. Ruggles (October 20): Very abundant. Several bad infestations in the Redlake area.

# SPRUCE GALL APHID (Pineus pinifoliac Fitch)

- Maine. H. B. Feirson (September 11): Very abundant at Seal Harbor, on Mount Desert Island.
- Massachusetts. P. B. Dowden (August 11): Aphid galls on tips of red spruce twigs collected at Ashfield, Franklin County, in western Massachusetts. (Det. by P. W. Mason.)

# COOLEY'S SPRUCE GALL (Adelges cooleyi Gill.)

Delaware. E. P. Felt (October 23): On oriental spruce at Wilmington.

## WILLOW AND POPLAR

# POPLAR AND WILLOW BORER (Sternochetus lamathi L.)

Ainnesota. H. Milliron (October 20): Reported from Newport as attacking willow and poplar.

Oregon. W. D. Edwards (October 23): Attacking willow, poplar, and birch at Portland. Hatching has proceeded until 85 percent are now in the larval stage.

#### WILLOW GROVE PLANT LOUSE (Melanoxantherium smithiae Monell)

Indiana. J. J. Davis (October 5): Frequently reported from many places in the northern half of the State. The migrating habits of this species during the fall months, and the blood-red stain left when crushed, perhaps reasons for numerous reports.

### COTTONWOOD SCALE (Chionaspis ortholobis Comst.)

Nebraska. M. H. Swenk (October 12): Infesting golden willows in Madison County.

#### INSECTS AFFECTING GREENHOUSE

#### AND ORNAMENTAL PLANTS

#### WHITEFLIES (Aleurodidae)

- North Carolina. D. L. Wray (October 1): Considerable damage to field-grown gardenias at Peachland, Anson County.
- Mississippi. C. Lyle and assistants (October 25): A report of injury by the citrus whitefly (<u>Dialeurodes citri</u> Ashm.) to camellia in Hinds County was received. Also reports of injury to Cape-jasmine received from Grenada, Montgomery, and Hinds Counties. There were heavy infestations of this whitefly on ornamentals in the Meridian area, and on citrus and ornamentals in the southeast.

## OYSTERSHELL SCALE (Lepidosaphes ulmi L.)

- Virginia. C. R. Lilley and F. R. Freund (September 23): Reported on peonics at Richmond.
- Minnesota. A. G. Ruggles and H. Milliron (October 20): Oystershell scale is very abundant.
- Nebraska. M. H. Swenk (October 3): Infesting elm trees in Custer County.

# FLORIDA RED SCALE (Chrysomphalus aonidum L.)

Mississippi. F. A. Smith (October 14): Noted on camellia in Lafayette County.

### SOFT SCALE (Coccus hesperidum L.)

Mississippi. C. Lyle (September 25): Pecorded on cactus and pepper plants in Lincoln County.

## A SCALE (Locanium fletchori Ckll.)

Haine. H. B. Peirson (July 1): Juniper scale was locally abundant in Augusta on pyramidal juniper.

### WHITE PEACH SCALE (Aulacaspis pentagona Targ.)

Virginia. C. R. Willey and F. R. Freund (September 23): Noted on candytuft at Richmond.

### FLOWER THRIPS (Frankliniella tritici Fitch)

Minnesota. H. Milliron (October 20): Reported on flowers at Hinckley.

#### AZALEA

### AZALEA LEAF MINER (Gracilaria azaleella Brants)

Virginia. H. G. Walker and L. D. Anderson (September): Heavily infested a planting of azaleas at Norfolk in September. (Det. by C. Heinrich.) The parasite Symplesis dolichogaster Ashm. (det. by A. B. Gahan) was reared from the pest.

# A NOTODONTID (Datana major G. & R.)

Virginia. H. G. Walker and L. D. Anderson (October 24): Observed rather heavily infesting a planting of azaleas at Norfolk.

# AZALFA SCALE (Eriococcus azaleae Comst.)

Mississippi. H. L. Grimes (October 24): Light local infestations reported from Meridian.

### CAMELLIA

# TEA SCALE (Fiorinia theae Green)

Mississippi. G. L. Bond (September 25): Noted on camellia from Forrest County. Heavy infestations on camellias were reported from the southeastern part of the State.

#### CA PHOR

#### AVOCADO RED MITE (Paratetranychus yothersi McG.)

Florida. J. R. Watson (October 21): Very abundant on camphor in most parts of the State, causing russeting of the foliage.

#### CANNA

### LARGER CANNA LEAF ROLLER (Calpodes ethlius Cram.)

Georgia. O. I. Snamp (September 22): Seriously damaged a clump of cannas at Fort Valley, central part of the State.

#### COLU BINE

#### AN APHID (Pergandeidia trirhoda Walk.)

New Jersey. M. D. Leonard (October 17); Several columbine plants at Ridgewood were reported recently as but very lightly infested and still remain so, although last fall at this time the lower leaves had plenty of this aphid. Almost no alates present.

#### EUONYMUS

## EUONYMUS SCALE (Chionaspis euonymi Const.)

New York. M. D. Leonard (October 7): Euonymus twigs heavily infested were brought in for identification and control.

#### FIRETHORN

# A LACEBUG (Córythucha cydoniae Fitch)

Mississippi. C. Lyle (September 25): Specimens received from Washington County. They were feeding on Pyracantha sp.

# LEAF CRUMPLER (Mincola indigenella Zell.)

Texas. R. K. Fletcher (October 20): Very common on highway plantings of Pyracantha sp. throughout the central part of the State.

#### GLADIOLUS

### THRIPS (Thripidae)

Louisiana. C. O. Eddy (October 25): The gladiolus thrips (Taeniothrips simplex Morison), so abundant on glads last spring, are not found on fall glads.

Utah. G. F. Knowlton and W. P. Nyc (September 29): Gladioli at Logan were infested by <u>Frankliniclla moultoni</u> Hood, <u>Thrips tabaci</u> Lind., and <u>T. simplex</u>. Damage reported from a number of gardens. (Dot. by S. F. Bailey.)

#### HAWTHORN

### AN APHID (Eriosoma crataegi Oestl.)

New York. M. D. Leonard (October 20): A fair-sized <u>Crataegus</u> sp. at Flushing was reported as having a number of terminal twigs heavily encrusted with this aphid, and has gradually been losing them, until now only a few small patches are left. Infested twigs have lost their leaves prematurely.

## A BORER (Oberea tripunctata Swed.)

Hissouri. A. C. Burrill (September 20): Noted in trunk of dying hawthorn on Capitol grounds at Jefferson City. (Det. by W. H. Anderson.)

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### LILAC

## GIANT HORNET (Vespa crabro L.)

Pennsylvania and New Jersey. E. P. Felt (October 23): Caused material injury to lilac at Cynwyd, Pa., and Orange, N. J.

#### LILIES

# AN APHID (Macrosiphum lilii Monell)

Maryland. F. F. Smith (October 24): Heavy infestation developed in field cages at Beltsville and killed the host plants,

Lilium fornosum. In other cages first sexual forms were observed on October 19.

# BULB MITE (Rhizoglyphus hyacinthi Bdv.)

Oklahoma. F. A. Fenton (October 19): Reported on lily bulbs in a greenhouse at Chandler, Lincoln County.

### MAGNOLIA

## MAGNOLIA SCALE. (Meolecanium cornuparvum Thro)

Massachusetts. E. P. Felt (October 23): Reported to be very abundant on a magnolia tree near Boston.

### TULIPTREE SCALE (Toumcyella liriodendri Gmel.)

Virginia. C. R. Willey and F. R. Fround (October 20): Was hatching on magnolias collected in Norfolk.

#### OLEANDER

### POLKA DOT WASP MOTH (Syntomeida epilais Walk.)

Florida. J. R. Watson (October 21): The larvae have proved injurious as far north as Lake City, Columbia County, and Jacksonville, Duval County, on oleanders.

#### ROSE

#### ROSE APHID (Macrosiphum rosae L.)

New Jersey. M. D. Leonard (October 17): Many rose bushes and vines at Ridgewood, which have been reported as but very lightly infested for some time past, seem to have had no aphids for several weeks.

## AN ERIOPHYID MITE (Callyntrotus schlectendali Nal.)

District of Columbia. C. A. Weigel and G. V. Johnson (August 24):
Taken on rose from a garden in Washington. (Det. by H. H.
Keifer.)

#### SNAPDRAGON

# A MIRID (Halticus bracteatus Say)

North Carolina. D. L. Wray and C. S. Brimley (September 30):
This hemipteron was feeding on snapdragon at Cornelius, Meck-lenburg County, and doing severe damage.

#### INSECTS ATTACKING MAN AND

#### DOMESTIC ANIMALS

#### MAN

#### MOSQUITOES (Culicinae)

- Massachusetts. A. I. Bourne (October 5): It was reported from Cape Cod in July and August that there was an outbreak of the mosquito Mansonia perturbans Walk., which was stated to have been more severe than during any previous year since mosquito-control work was begun in that section.
- Tennessee. G. M. Bentley (October 23): During September and October mosquitoes, <u>Culex pipiens</u> L., have been pestiferous in places where environs are favorable for their breeding.

### CRAB LOUSE (Phthirus pubis L.)

Pennsylvania. C. C. Zeliff (October 2): Thirty-two specimens were collected on a man at State College.

## BROWN DOG TICK (Rhipicephalus sanguineus Latr.)

- Virginia. H. G. Walker (October 16): Causing a great deal of trouble in a kitchen and on a dog at Norfolk; also reported as very abundant. (Det. by Helen L. Trembley.)
- Indiana. J. J. Davis (October 5): Becoming generally distributed, and one of the most annoying pests in homes.
- Mississippi. C. Lyle (October 3): Infesting dogs in Bolivar County.
- California. H. H. Keifer (September 13): Taken in an apartment house in Los Angeles. This species was supposed to be exceedingly abundant in this particular location and to be causing annoyance. (Det. by F. C. Bishopp.)
- Arizona. C. D. Lebert (October 1): Correction.—The tick,

  Dermacentor occidentalis Neum., reported on page 521 of the
  Insect Fest Survey Bulletin dated October 1, 1939, has been
  determined by F. C. Bishopp as R. sanguineus.

# EAR TICK (Ornithodoros megnini Duges)

Oregon. D. C. Mote (October 15): A specimen was reported to have been removed from the ear of a man in Moro, Sherman County.

This species is rather uncommon in Oregon. It is not known to be widely distributed, as it has been reported only in the following counties: Malheur, Umatilla, Sherman, Wasco, and Jefferson.

### BLACK WIDOW SPIDER (Latrodectus mactans F.)

Oregon. D. C. Mote (October 23): A water meter inspector in Philomath, Benton County, reported having obtained three specimens of black widow spider from the small recesses in the ground in which water meters are placed. This same inspector found several specimens in the same locality 4 or 5 years ago when the spider appeared to be quite abundant and considerable publicity was given to this form. During the last few years only an occasional specimen has been reported or brought into the laboratory.

#### CATTLE

### SCREWWORM (Cochliomyia americana C. & P.)

Florida. A. L. Brody and E. B. Blakeslee (October 12): A case of true screwworm was found in the horn of a sheep. Larvae were in the second instar at Panama City.

## STABLEFLY (Stomoxys calcitrans L.)

- Florida. S. W. Simmons and E. E. Rogers (October): Heavy rains on September 24 and 25 caused a sudden drop in abundance of the stablefly in Bay County, and this continued until October 13, when there was a rather sudden reappearance following several days of north wind. Little breeding was observed in sea grass during the period of scarcity.
  - A. L. Brody (October 13): A resident of Panama City told of the reappearance of the dog flies in swarms after an absence of about 3 weeks. These flies were first noticed at 7.30 a. m. on October 13.
- Missouri. L. Haseman (October 23): Since September horn flies and stableflies (<u>Haematobia irritans</u> L. and <u>S. calcitrans</u>) have been rapidly reducing in numbers, but a few are still present.
- Utah. G. F. Knowlton (September 28): Stableflies are annoying to man at Syracuse. (October 19): Among flies present in a school at Logan were a few stableflies.

#### LONE STAR TICK (Amblyomma americanum L.)

Virginia. C. R. Willey and F. R. Freund (September 25): Attached to a man's leg at Fichmond. (Det. by F. C. Bishopp.)

## SWINE

### HOG LOUSE (Haematopinus adventicius Neum.)

Tennessee. G. M. Bentley (October 15): Prevalent over the State on hogs wherever attention is not directed toward its control.

#### HOUSEHOLD AND STORED-PRODUCTS INSECTS

#### ANTS (Formicidae)

- Mississippi. J. Milton (October 25): Specimens of the Argentine ant (Iridomyrmex humilis Mayr) were sent in from Lafayette, Lowndes, Oktibbeha, and Tate Counties. Reports of annoyance were received from Hinds and Scott Counties.
- Oklahoma. F. A. Fenton (October 19): The red harvester ant (Pogonomyrmex barbatus F. Smith) was reported at Weatherford, Custer County, and at Ponca City, Kay County.
- Nebraska. M. H. Swenk (October 17): On October 6 specimens of the ant Crematogaster lincolata Say were found infesting houses in Douglas County, and on October 11 an apartment building was reported to be infested with the Pharaoh's ant (Monomorium pharaonis L.)

# FIELD CRICKET (Gryllus assimilis F.)

- Virginia. C. R. Willey and F. R. Freund (October): Fairly abundant in Richmond this fall. Several reports of this insect as attacking silk clothing.
- Arizona. C. D. Lebert (September): These crickets appeared in great numbers on September 7 and 8, following heavy rains of September 4 and 5, and entered many of the Phoenix business houses by the millions. Constant control measures were necessary for a period of about 1 week, to take care of the many infestations. Severe damage threatened several of the furniture stores. (Det. by A. B. Gurney.)

## A ROACH (Supella supellectilium Serv.)

Mississippi. C. Lyle (September 20): Specimens received from one locality in Panola County.

#### GREENHOUSE STONE CRICKET (Tachycines asynamorus Adel.)

Ohio. A. B. Gurney (September 20): Crickets were numerous in greenhouses and barn in Cincinnati, according to a correspondent who sent specimens. They were attacking greenhouse crops and chrysanthemums.

#### A CLOTHES MOTH (Tineola walsinghami Busck)

Florida. J. R. Watson (October 21): Very prevalent in practically all parts of the State from Alachua County south.

## A DERMESTID (Thylodrias contractus Mots.)

New York. E. Garlichs (September 29): Larvae received from New York City. (Det. by W. H. Anderson.)

### DRUG STORE WEEVIL (Stegobium paniceum L.)

New York. R. E. Horsey (October): Control measures were successful against this weevil in a local herbarium at Rochester, where considerable damage was done to specimens last year. Inspection of the specimens during the last 2 months revealed a few larvae. Adults capable of flight were found on September 30.

### DRIED FRUIT BEETLE (Carpophilus hemipterus L.)

California and Arizona. P. Simmons and G. H. Kaloostian (October 11):
Severe souring and decay of dates in the Indio, Phoenix, Yuma,
and El Centro areas, caused by exceptional rains, was accompanied by an abundance of these beetles. This species was the
most generally plentiful species found.

## STORED GRAIN INSECTS

- Minnesota. H. H. Shepard (October): Three recent records of

  Tribolium madens Charp. were noted, two of these being from
  residences in Murray County on August 31 and Lincoln County
  on October 17, and one from shelled corn in Yellow Medicine
  County on October 12. All three records are therefore from
  the southwestern corner of the State. On August 18 Callosobruchus maculatus F. was reported in large numbers in a kitchen
  cupboard in an apartment house at Saint Paul.
- Indiana. J. J. Davis (October 5): The angoumois grain moth

  (Sitotroga cerealella Oliv.) is more prevalent and destructive this fall, especially in the southern half of the State, than for many years. Infestations refer primarily to field corn and popcorn.
- Iowa. H. E. Jaques (October 23): The stored-grain situation is a serious one, much corn being already in sealed storage and an abnormally large crop in the field. A number of species of beetles and moths are involved.

